

REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, reconsideration of this application is requested. Claims 1-23 are now pending with claims 1, 9, and 12 being independent. Claims 1, 9, 12, and 23 have been amended. No new matter has been added.

Applicant has submitted along with this Amendment as Submission for RCE an Applicant Initiated Interview Request Form PTOL-413A. Form PTOL-413A requests that the Examiner grant Applicant's representative Randall Furlong a telephonic interview prior to mailing an office action on the merits in response to this amendment. Applicant's representative Randall Furlong can be reached at (713) 398-5741.

Amended claim 1 describes an authorization control circuit in an electronic device that includes a digital signal processor to provide digital data output, determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result, and generate a disable signal. The circuit also includes a digital to analog converter coupled to the digital signal processor that receives the digital data output, converts the digital data to corresponding analog data, output the corresponding analog data, and mute the output of the corresponding analog data. The digital to analog converter includes an input to receive the disable signal, the digital to analog converter muting the output of the corresponding analog data in response to the disable signal. The disable signal is generated when the electronic device satisfies one or more sleep conditions.

Amended claim 9 describes an authorization control circuit in an electronic device that includes a digital signal processor to provide digital data output, determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result, and generate a disable signal. The authorization control circuit also includes a digital to analog converter coupled to the digital signal processor to receive the digital data output, convert the digital data to corresponding analog data, and output the corresponding analog data. The control circuit includes an analog amplifier to receive the analog output from the digital to analog converter and generate amplified output. The analog amplifier has an input to receive the disable signal, the amplifier muting the amplified output in response to the disable signal. The disable signal is generated when the electronic device satisfies one or more sleep conditions.

Amended claim 12 describes a method of selectively muting output. The method includes the steps of: generating digital data; determining an authorization state, wherein determining the authorization state comprises comparing a mathematical function result executed by a digital signal processor to an expected result; generating a disable signal; transmitting the digital data to a digital to analog converter; generating an analog signal corresponding to the digital data; transmitting the disable signal to the digital to analog converter; and muting the analog signal in response to the transmitted disable signal.

Claims 1-18 and 21-22 stand rejected under 35 U.S.C. § 103(a) as obvious over Deluca et al. (5,612,682) in view of Seo et al. (5,063,597) and further in view of Tran (5,734,729) and even further in view of Nagata (6,114,981). Applicant requests reconsideration and withdrawal of these rejections for at least the reason that Deluca, Seo, Tran, and Nagata do not describe or suggest how to determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result.

Deluca, in the Abstract, teaches a method and apparatus in a communication system operated by a service provider that controls utilization of a module added to a portable communication device including a transceiver which communicates with a fixed portion of the communication system. The portable communication device receives a request for utilization of the module. In response, the portable communication device acts to obtain a usage authorization for utilizing the module. The portable communication device disallows the utilization of the module, in response to the usage authorization being unobtainable. No part of the Deluca reference describes or suggests how to determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result.

Seo fails to remedy the failure of Deluca to describe or suggest how to determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result. Seo, in the Abstract and Figure 3, teaches a muting circuit in a digital audio system having a digital signal processor, a first latch, a second latch, a comparator for comparing data in the first and second latches, an address encoder, a counter, a memory, a divider, a multiplier and a switching circuit. Disturbing beat noises generated during the turning off of power to the system or null data pop noises generated in response to external influences or internal circuitry influences are muted. Seo does not describe or suggest how to determine an

authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result.

Tran fails to remedy the failure of Deluca and Seo to describe or suggest how to determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result. Tran, at column 2, lines 31-42, describes an audio power management system that eliminates audible noise associated with waking up or putting a computer to sleep, using a speaker mute signal. Tran does not describe or suggest how to determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result.

Nagata fails to remedy the failure of Deluca, Seo, and Tran to describe or suggest how to determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result. Nagata, in the Abstract, teaches an over-sampling D/A converter that has a mute function for fixing an average DC potential of an analog output signal to a predetermined potential, and comprises a sigma delta modulator for receiving a multibit digital signal to which a DC offset value is added and then outputting a one-bit non-return-to-zero signal. Nagata does not describe or suggest how to determine an authorization state by comparing a mathematical function result executed by the digital signal processor to an expected result. For at least these reasons, Applicant respectfully submits that claims 1, 9, and 12 are patentable over Deluca in view of Seo and further in view of Tran and even further in view of Nagata.

Claims 2-8 and 21-22 depend from independent claim 1, claims 10-11 depend from independent claim 9, and claims 13-18 depend from independent claim 12. Accordingly, Applicant requests reconsideration and withdrawal of the rejections for claims 2-8, 10-11, 13-18, and 21-22 for the reasons discussed above with respect to claims 1, 9 and 12.

Claims 19-20 stand rejected under 35 U.S.C. § 103(a) as obvious over Deluca et al. (5,612,682) in view of Seo et al. (5,063,597) and further in view of Tran (5,734,729) and even further in view of Nagata (6,114,981) and still further in view of Lipovski (6,675,002). Applicant requests reconsideration and withdrawal of these rejections for at least the reason that Deluca, Seo, Tran, Nagata and Lipovski do not describe or suggest that determining the authorization state comprises comparing a mathematical function result executed by a digital signal processor to an expected result.

No part of the Deluca, Seo, Tran or Nagata references, as mentioned above, describes or suggests comparing a mathematical function result executed by a digital signal processor to an expected result to determine an authorization state. Lipovski fails to remedy the failure of Deluca, Seo, Tran, and Nagata to describe or suggest that determining the authorization state comprises comparing a mathematical function result executed by a digital signal processor to an expected result. Lipovski makes no mention that determining the authorization state comprises comparing a mathematical function result executed by a digital signal processor to an expected result. For at least these reasons, Applicant respectfully submits that claims 19-20 are patentable over Deluca in view of Seo and further in view of Tran (5,734,729) and even further in view of Nagata (6,114,981) and still further in view of Lipovski.

Claim 23 stands rejected under 35 U.S.C. § 103(a) as obvious over Deluca et al. (5,612,682) in view of Seo et al. (5,063,597) and further in view of Tran (5,734,729) and even further in view of Nagata (6,114,981) and still further in view of Elliot (2002/0077177). The Examiner admits that Deluca as modified “fails to teach performing a hash function on the data file by the DSP.” *Examiner’s Answer* mailed May 31, 2007, page 7. The Examiner states that “Elliot teaches performing a hashing function on the data to generate the mathematical function result wherein the hashing function is executed by the digital signal processor (Elliot, pages 16-17, paragraph 0192).” *Id.* Applicant respectfully disagrees. In fact, Elliot teaches that the hash algorithm is implemented by a separate and distinct encryption processing engine (EPE) 406 and not by the digital signal processor (DSP) 402 (Elliot, page 16, paragraph 0192, and Elliot, Figure 13). Indeed, Elliot teaches away from using the DSP 402 to implement such a hash algorithm by teaching that the EPE 406 is used “to relieve a significant processing burden on DSP 402” (Elliot, page 16, paragraph 0191). Consequently, Elliot also fails to remedy the failure of Deluca, Seo, Tran, and Nagata to describe or suggest that determining the authorization state comprises comparing a mathematical function result **executed by a digital signal processor** to an expected result. Elliot makes no mention that determining the authorization state comprises comparing a mathematical function result **executed by a digital signal processor** to an expected result. Accordingly, Applicant requests reconsideration and withdrawal of this rejection for the reasons discussed above with respect to claims 1, 9, and 12.

In view of these remarks and amendments, Applicant submits that this application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account 20-0668 of Texas Instruments Incorporated.

Respectfully submitted,

/Randall Furlong/

Randall Furlong
Reg. No. 35,144
Indranil Chowdhury
Reg. No. 47,490
Attorneys for Applicant

Robert D. Marshall, Jr.
Texas Instruments Incorporated
P.O. Box 655474, MS 3999
Dallas, TX 75265
(972) 917-5290